

40 carbon atoms, wherein the oil phase comprises at least one hydrocarbon oil which represents at least 40% by weight relative to the total weight of the oil phase.

As noted in the present specification, W/O emulsions are desirable in the cosmetic and dermatological fields because such emulsions possess desirable properties such as, for example, forming a lipid film on skin after application to inhibit transepidermal water loss, to protect skin from external attacks and to increase the persistence of sunscreen agents, as well as protecting and carrying hydrophilic active agents sensitive to oxidation. (Page 1, lines 10-17). However, W/O emulsions have two major problems: (1) they generally are difficult to apply and lack cosmetic pleasantness upon application (that is, they feel heavy and greasy); and (2) they lack stability, particularly when the aqueous phase is substantial or when the emulsion is fluid. (Page 1, line 18 through page 2, line 8).

The presently claimed invention addresses such problems associated with W/O emulsions. Specifically, the claimed invention provides W/O emulsions containing a polyolefinic emulsifier having a polar component and a polyolefinic apolar component comprising at least 40 carbon atoms, wherein the oil phase comprises at least one hydrocarbon oil which represents at least 40% by weight relative to the total weight of the oil phase. Utilizing the claimed polyolefinic emulsifier yields W/O emulsions having beneficial and desirable characteristics, such as having a light and fresh feel upon application as well as possessing good stability, even when the aqueous phase of the emulsion is large or the emulsion is fluid. As such, the presently claimed invention represents an advance in the art deserving of patent protection.

In view of this background, each of the rejections made in the outstanding Office Action will be addressed in turn.

REJECTIONS UNDER 35 U.S.C. §112

The Office Action rejected claims 15, 38 and 39 under 35 U.S.C. §112, second paragraph, as being indefinite. Applicants respectfully submit that the above non-limiting amendments have rendered these rejections moot. Accordingly, Applicants respectfully request that the rejections under § 112 be withdrawn.

REJECTIONS UNDER 35 U.S.C. §§102 AND 103

The Office Action rejected claim 39 under 35 U.S.C. § 102 as anticipated by U.S. patent 5,980,922 (“Mackey”). The Office Action also rejected claims 1-13, 15, 16, 18-20, and 22-39 under 35 U.S.C. §103 as obvious over U.S. patent 4,606,913 (“Aronson”) in view of the Proceedings from the 5th World Surfactants Congress (“Proceedings”). In view of the following comments, Applicants respectfully request reconsideration and withdrawal of these rejections.

Regarding the § 102 rejection, Mackey neither teaches nor suggest the invention of claim 39. Mackey relates to toilet paper to which W/O emulsions have been added. (See, Technical Field and Background Section). The oil phase in Mackey’s emulsions is solidified, and this solidified oil phase “provides the essential stabilizing structure” for the water phase of Mackey’s emulsions. (See, col. 9, lines 39-41). The major constituent of Mackey’s solidified oil phase is wax. (Col. 9, lines 51-52). The solidified oil phase can contain minor amounts of other lipophilic or lipid-miscible materials. (Col. 10, lines 39-41).

In contrast, the invention of claim 39 requires that the oil phase contain at least 40% by weight of at least one hydrocarbon oil. Incorporating this amount of hydrocarbon oil into the oil phase should not result in a solidified oil phase like Mackey’s. Rather, the presence of such a significant amount of hydrocarbon oil should result in a fluid emulsion.

Thus, Mackey's external oil phase is solid and contains a significant amount of stabilizing wax, whereas the invention of claim 39 is a fluid emulsion (e.g., milk or cream compositions) containing a significant amount of hydrocarbon oil, meaning among other things that the external oil phase is not solid. In short, Mackey does not disclose the invention of claim 39.

Finally, Applicants note that the Examiner has previously withdrawn the § 102 rejection of claims 1, 4-7, 9, 11-16, 18-20 and 22-28 based upon Mackey after Applicants amended the claims to require the presence of at least 40% by weight of at least one hydrocarbon oil. Because claim 39 has been amended in a similar manner, the rejection of claim 39 should be withdrawn as well.

In view of the above, Applicants respectfully request that the § 102 rejection based upon Mackey be reconsidered and withdrawn.

Regarding the § 103 rejection, the Office Action recognizes that Aronson neither teaches nor suggests the claimed emulsifiers, and relies upon Proceedings to compensate for this critical deficiency. However, there is no evidence Proceedings constitutes prior art to the claimed invention.

Proceedings relates to a conference apparently held May 29-June 2, 2000, in Italy. However, there is no indication when the Proceedings publication became publicly available, let alone evidence showing that the publication became publicly available more than 1 year prior to the present application's U.S. filing date. Accordingly, no evidence exists indicating that the Proceedings publication constitutes prior art under 35 U.S.C. § 102 (b).

Moreover, Proceedings does not constitute prior art under any other subsection of § 102. Applicants will submit a Rule 131 declaration demonstrating that the claimed invention was prepared in France prior to the alleged starting date of the Italian conference

(May 29, 2000). Because the claimed invention was prepared prior to the earliest date reflected on Proceedings, Proceedings cannot constitute prior art under the other subsections of § 102.

Because Proceedings does not constitute prior art and because Aronson neither teaches nor suggests the claimed emulsifiers, the § 103 rejection cannot stand.

In view of the above, Applicants respectfully submit that the rejection under 35 U.S.C. § 103 is improper and should be withdrawn.

Applicants believe that the present application is in condition for allowance. Prompt and favorable consideration is earnestly solicited.

Respectfully submitted,

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IN THE CLAIMS

15. (Amended) The composition according to Claim [14] 1, wherein the quantity of oily phase ranges from 2.5% to 60% by weight relative to the total weight of the composition.

38. (Amended) The composition according to Claim 35, wherein the quantity of oligomeric or polymeric emulsifier [oligomer(s) or polymer(s)] present ranges from 0.1% to 10% by weight [of active substance] relative to the total weight of the composition.

39. (Amended) A physiologically acceptable topical composition, comprising:
an aqueous phase dispersed in an oily phase, and an oligomeric or polymeric emulsifier comprising i) a polyolefinic apolar component comprising at least 40 carbon atoms and ii) at least one polar component, wherein the composition comprises at least 30% by weight of water relative to the total weight of the composition, the quantity of aqueous phase ranges from 40% to 95% by weight relative to the total weight of the composition, [and] the quantity of emulsifier [oligomer(s) or polymer(s)] present ranges from 0.1% to 10% by weight [of active substance] relative to the total weight of the composition, said oily phase comprises at least one hydrocarbon oil and said at least one hydrocarbon oil is present in an amount of at least 40% by weight relative to the total weight of the oily phase.

Claims 40-48 (new)